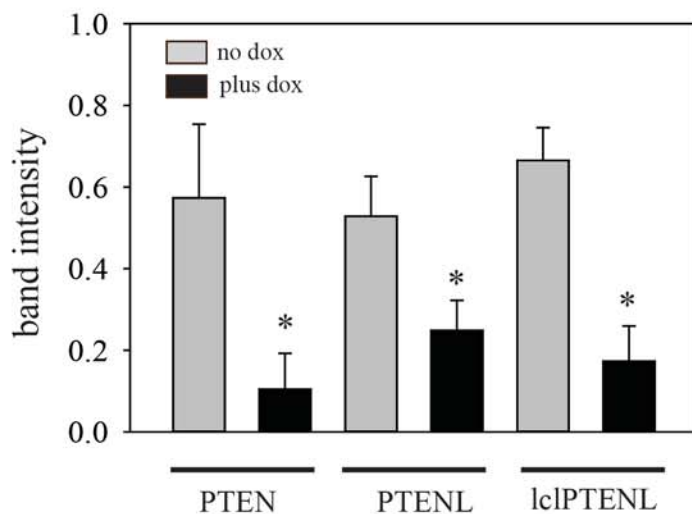## Supplemental Information

Engineering PTEN-L for Cell-Mediated Delivery

Sylvie J. Lavictoire, Alexander Gont, Lisa M. Julian, William L. Stanford, Caitlyn Vlasschaert, Douglas A. Gray, Danny Jomaa, and Ian A.J. Lorimer

Figure S1. Effects of PTEN, PTEN-L and lclPTEN-L on Akt phosphorylation.
U87MG cells engineered for inducible expression of either PTEN, PTEN-L or
lclPTEN-L were treated without or with 1uM doxycycline for 48 h. Total cell
lysates were collected and analysed by Western blot for expression of
phosphorylated Akt. Data are from three independent experiments. Error bars
show the mean +/- SE. * indicates $p < 0.05$ by a one-tailed t test.
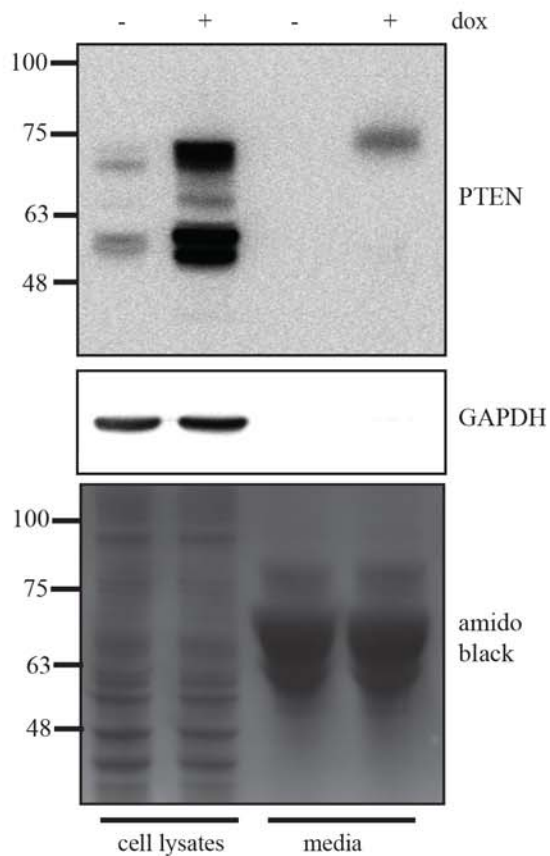
Figure S2. Expression of lclPTEN-L (C124S) mutant. U87MG cells engineered for inducible expression of PTEN-L (C124S) were treated with 1uM doxycycline for 48 h. U87MG cells were grown in media containing 0.5 % FBS to reduce interference of the BSA band in Western blots of conditioned media. Total cell lysates and conditioned media were collected and analysed by Western blot. The top panel shows the blot probed with PTEN antibody. The middle panel shows the same blot probed with GAPDH antibody to confirm equal loading of cell lysates.The bottom panel shows that same blot stained with amido black to show equal loading of cell lysates and conditioned media.
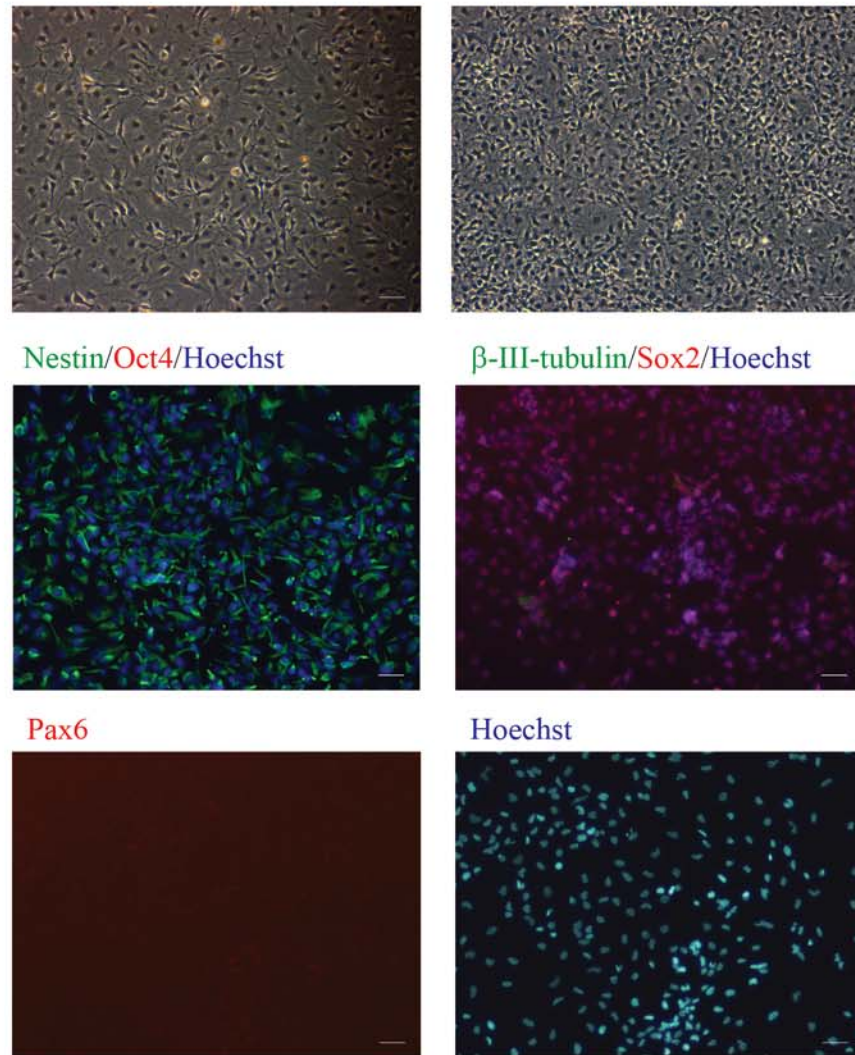
Figure S3. Characterization of induced pluripotent stem cell-derived neural stem cells.
The top panels show the morphology of cells by phase contrast microscopy on passage 4 (left panel) and passage 7 (right panel) post neural induction. Middle panels show immuno-fluorescence microscopy for nestin and Oct4 (left panel) and β–III-tubulin and Sox2 (right panel) pseudocoloured as indicated. Nuclei were stained with Hoechst. Bottom panels show immunofluorescence microscopy for Pax6 (left panel) and Hoechst staining of the same field of view (right panel). Scale bar is 100 μm.